Finding Lost Telescope Position

So you lost your telescope... It happens to the best of us. Below is a procedure to reacquire celestial position in the event (due to power lose or Sarah Lemmon shenanigan's) the telescope has completely lost its position.

Rediscover Home

The procedure is best done if you have a few more moment of time, you want a more precise alignment, or the sky is not available to you (daytime, clouds, closed dome, etc.).

Turn Off the Controller

I know. It sounds weird but hear me out. The telescope doesn't know where it is and the drivers are engaged. You could use the hand controller to move it into position in the next step but that runs the risk of the Controller thinking you are going into a soft limit and thus not letting you get truly into position.

So just do what I tell you. Turn the Controller off via the big red switch. When you do this Maestro, on the desktop, will be unhappy. That's ok. It will automatically reconnect once the Controller is turned back on.

Point to Park

Manually move the telescope so it is roughly in the Park position. There are indicators for both axis that are close enough and are described in the Startup Procedure.

Turn On the Controller

Flip the big red switch on the control box again to turn on the Controller.

Align from Last

In the `Settings` tab, under the `Alignment` section, click the `Align from Last` button. This will NOT actually align it to a correct or even close position. It will however allow us to do the next step as the TCS does not allow calibration unless it is already aligned (no matter how incorrectly aligned it is).

Calibrate to Alt/AZ

Here is the annoying bit. The telescope THINKS it knows where it is because we Aligned from Last but really it has no idea still. We do know however and can for that upon it.

With the Telescope still at the Park position go to the `Settings` tab, then `Calibration` and select the `Use Az/Alt` radio button. Below this you will input the position as follows:

Az: `180:00:00`

Alt: `25:00:00`

You must write them in this format otherwise Maestro won't accept it (it doesn't have a very good syntax parser/converter).

Once these values are inputted click the `From Az/Alt`.

NOTE: If you do not see that button and instead have a `From RA/Dec` button it's because you didn't click the `Use Az/Alt` radio button instructed before. Consider yourself a disappointment and hope nobody saw you make this mistake.

Align from Home Seek

Calibrate on Bright Star

It is also possible to realign the telescope via a bright star in the sky. This won't be as accurate as doing a “Home Seek” but should be faster if you are already on the sky and simple lost positioning for whatever reason.

Align from Last

In the `Alignment` section of the `Settings` tab look at the Status. It should either say Completed OR Not Aligned.

image of both options

If it says Completed then you can just proceed to the next step. If it is alignment you will be unable to calibrate

Find a Bright Star

Now you must decide which star to use. Obviously a star you know and can point relatively quickly would be best but it must also be a star within the Maestro software. Take a look at the available stars in the drop down list in `Settings→Calibrate→From Bright Star` or search for your star from this list of available stars.

Position Star on Main Camera OR in Eyepiece

Calibrate - From Bright Star

On the `Settings` tab of Maestro3 locate the `Calibration` section then the `From Bright Star`.

insert image of the above step

There is a drop down below the button. Select the star you have pointing the telescope at and simple hit the `From Bright Star` button. There will be a

Troubleshooting

If the above procedure does NOT fix your issue there is something else going on. Check the RA tape for bugs, make sure the telescope is well balanced, note any errors in Maestro. If you can't find a solution contact Travis.